

**ADDENDUM TO INSTRUCTIONS:
LOUISIANA EVACUATION ROUTE SURVEY - SR 1 - RACELAND TO GRAND ISLE**
<http://www.ngs.noaa.gov/PROJECTS/INSTRUCTIONS/HTMOD/LA-GPS1763.pdf>

Preliminary data analysis suggests a potential discrepancy between two Grand Isle tide stations. Please complete the leveling and additional GPS observations described below.

LEVELING SPECIFICATIONS:

Precise leveling, as described in the "Geodetic Leveling Manual," is required between tide stations 876 1720 and 876 1724. Include also the following nearby stations, if feasible:

| | |
|----------------------------|---------------------------|
| AT0683 , 876 1724 A TIDAL | AT0687 , 10 |
| AT0682 , 876 1724 B TIDAL | AT0685 , 11 |
| AT0681 , 876 1724 C TIDAL | AT0684 , 12 |
| AT0689 , 876 1724 D TIDAL | AT0278 , 876 1720 TIDAL 6 |
| AT0688 , 876 1724 TIDAL 13 | AT0275 , 876 1720 TIDAL 7 |
| AT0686 , 876 1724 TIDAL 14 | AT0276 , 876 1720 TIDAL 8 |
| AT0680 , T 358 | AT0277 , 876 1720 TIDAL 9 |
| AT0679 , V 358 | |

The line shall be leveled in both directions to first-order, class II standards. Leveling in one direction is acceptable when leveling between old bench marks, provided the newly observed elevation difference agrees with the previous difference within tolerance limits. When new marks are set, or the newly observed elevation difference between two old marks does not agree with the previous difference within tolerance, one side of the new or moving mark must be leveled in both directions.

If multiple new marks are set between old marks, all but one section between the old marks are to be leveled in both directions. Specifications and other technical considerations for this project are given in the "NGS Operations Handbook," "Geodetic Leveling Manual," "Bench Mark Manual," and "Interim FGCS Specifications and Procedures to Incorporate Electronic Digital/Bar-Code Leveling Systems."

Use the following project identifiers for the leveling data:

| | |
|-----------|---|
| Title: | Louisiana Evacuation Route Survey, near Grand Isle, Louisiana |
| HGZ #: | L26459 |
| Job Code: | G5 |

GPS SPECIFICATIONS:

Acquire at least two each, 2-hour GPS observations on one primary bench mark from each tide station. The equipment shall be broken down and reset with a minimum of 30 minutes between the two sessions. Use stations 876 1720 TIDAL 9 (PID AT0277) and 876 1724 TIDAL 11 (PID AT0685) if feasible.

STATION DESCRIPTIONS:

Proper documentation is critical to resolve the existing conflict in survey data. Double check all tide station maps, station descriptions, stampings, etc. Take pencil rubbings and detailed photographs of all stations.

LEVELING DATA FORMATS AND HANDLING:

Leveling data will be submitted in "Blue Book" format (see "Input Formats and Specifications of the National Geodetic Survey Data Base," Volume I. Horizontal Control Data (revised November 1998) and Volume II. Vertical Control Data, Federal Geodetic Control Subcommittee, September 1994) to NGS Headquarters on floppy disks. Floppy disks shall contain the final version of the following files: HGF, HGZ, and HA in direct access format and RPT and ABS in sequential format. Data shall be submitted to the Observation and Analysis Division within 30 days of completion of the project.

All bench marks established during this leveling project must be plotted on the best available map and the positions of bench marks scaled using standard procedures, if the bench mark position cannot be determined with a GPS instrument. One set of these maps shall be submitted with the data. Those recovered bench marks which do not have PIDs will be treated as new marks.